

Fletton Quays

Peterborough

Keller have installed approximately 1800 driven precast concrete piles for four new apartment structures for Weston Homes. The displacement piles have been driven through both cohesive and granular ground to achieve sets on the limestone bedrock in two separate visits to site.



The project

Keller have installed driven precast piles for residential concrete frames structures up to seven storeys tall. We were able to keep to the programme requirements using a single rig that regularly installing more than 40 piles a day.

The challenge

Each block had variable pile loads. The lower pile loads up to 230kN were installed using 180mm square piles and loads up to 660kN were installed using 220mm square piles. Where there were larger horizontal loads up to 25kN, the piles were designed and installed as 250mm square precast piles. All the piles were manufactured and installed with pre-stressing.

The solution

Each block has two distinct levels for piling, the general ground floor level and the below ground basement level in the centre of each block. The cut off levels for the basement piles were typically 3m below the main ground floor level. Keller have utilised their in-house purpose built 'dolly' to drive piles below ground level, further mitigating waste and economising on the already efficient piling system.

Project facts

Owner(s)

Weston Homes

Keller business unit(s)

Keller UK

Main contractor(s)

Weston Homes

Solutions

Piling

Markets

Residential

Techniques

Driven precast piles

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